

# A B S T R A C T

A sensing element (102) includes a porous material (121) which is porous glass having a plurality of fine pores (122) having an average pore size of 4  $\mu\text{m}$ , a sensing agent (123) formed in the pores (122), and a  
5 selective permeable film (124) which is formed to cover the surface of the porous material (121) and made of a plastic film. The selective permeable film (124) is made of an organic polymer such as polyacrylonitrile or PMMA which uses, as a monomer, a compound made of a  
10 chainlike molecule containing a vinyl group, and has a film thickness of about 0.05 to 1  $\mu\text{m}$ .